

BOAR EXPOSURE: GILT DEVELOPMENT



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ALL HIGH PRODUCING SOW FARMS HAVE TWO THINGS IN COMMON:

- A predictable supply of gilts that weigh 300-330 lbs at breeding and are being bred on their second or greater estrus.
 - Sows that return to estrus day 3 to 5 post wean.
- *Proper Boar Exposure is critical to meet these goals.

4 METHODS OF BOAR EXPOSURE FOR GILT DEVELOPMENT

- The ideal method is the BEAR (Boar Exposure Area) Method. This method involves housing boars in their own room and bringing gilts to the boars for 10-15 minutes of direct exposure in the pens. Most commercial farms are not set up to have separate boar housing but it yields strong results.
- One of the most common methods is to bring the boars into the gilt pens. There should be 1 boar per 12 gilts. All gilts should be up and on their feet to interact with the boar for direct contact with the boars for 10-15 minutes. Boars will tire and lose effectiveness so they must be rotated after 4 pens.
- The second most common process is to bring boars into the alleyway along the fence line. There should be 1 boar per 12 gilts. With this method, it is critical to have enough fence line for all gilts to have nose-to-nose contact with boars for 10-15 minutes. If all the gilts in a pen cannot reach the fence to have nose-to-nose interactions with the boar, the gilt may not receive enough exposure to exhibit a standing estrus response.
- The last method is a sleepover method with vasectomized boars. In this process, boars are placed with gilts for an extended period of time beginning at 23 weeks of age. Boars should be removed from pens for 1 day before bringing boars back to heat check for breeding. The downside of this method is that you can't easily identify when and if gilts cycled during the sleepover period.

ADDITIONAL TIPS:

AVOID CONTINUOUS EXPOSURE

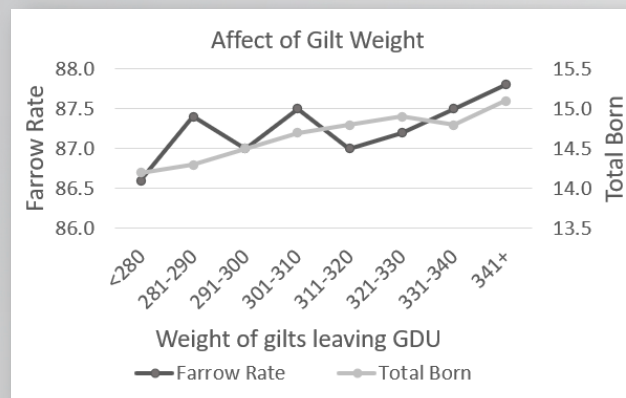
Gilts can become refractory to boar stimuli and will not exhibit the normal signs of estrus. If boars are housed in the same room with gilts, boars should be placed near exhaust fans.

HNS

Boar Exposure is critical to identify a gilt's first estrous cycle. This allows for a Skip Heat or Heat no Service which increases total born and born alive in the first parity and affects overall lifetime productivity. Breeding between the 2nd and 4th cycle increases total born by ~1.5 and the farrow rate by ~10%.

WEIGHT

Gilts should be a minimum of 265 pounds before starting boar exposure. Weight is the most important determining factor for gilts to cycle.



LOW PRODUCING FARMS OR FARMS THAT STRUGGLE TO MEET BREEDING TARGETS LIKELY HAVE ONE OF THESE METHODS IMPLEMENTED BUT MAY BE MISSING A CRITICAL PART OF THE PROCESS.

FREQUENTLY, THE RATIO OF BOARS TO GILTS IS TOO LOW AND THE TIME SPENT HEAT CHECKING IS INSUFFICIENT TO IDENTIFY HEAT. IN ALL FOUR METHODS, DIRECT CONTACT IS CRITICAL.

BOAR EXPOSURE: WEAN SOWS



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ECONOMIC RETURN

GDU

Getting a HNS on 90+% of females = 0.75 TB

0.56 weaned on gilt litters (20% of litters)

0.56 pigs x 20% of litters x 2.4 litters per year = 0.27 PSY improvement

0.27 p/s/y x \$30/pig = \$8.10/sow/year

WEANED SOWS

1 pig/litter TB=0.75 weaned on P2+ litters (80% of litters)

0.75 pigs x 80% of litters x 2.4 litters per year = 1.44 P/S/Y improvement

1.44 p/s/y x \$30/pig = \$43.2/sow/year

LESS NON-PRODUCTIVE SOW DAYS

3% of sows and gilts bred 21 days earlier, \$2.5/day for 21 days

0.03 x \$2.5 x 21 = \$1.58 x 2.4 turns/year = \$3.80/sow/year

Adding additional boars to a sow farm increases costs of \$567/boar. For a 5,000 sow farm, an additional 10 boars would cost \$1.10/sow/year. There would also be a \$.28/sow/year cost for lost revenue for boar crate utilization.

TOTAL INCREASED REVENUE

\$53.70

Gilts: \$8.10

Sows: \$47.00

Boar Expense: \$1.40

SELECTING BOARS

High libido, athletic boars producing a high quantity of pheromones are the most effective to use for Boar Exposure. They should be active and frothing when in front of the gilts or weaned sows. Crossbred terminal and maternal line boars need to be 10 months of age to provide adequate stimulus. Meishan and Meishan-cross boars reach sexual maturity sooner, around 4 months of age, and typically show higher libido.

STIMULATING RETURN TO ESTRUS

To optimize the estrous cycle and reproductive performance, boar exposure should begin on the day of weaning.

- For crate gestation, boars should be brought into the alleyways to allow for direct contact in front of the sows.
- For pen gestation, boars should be brought into the pens with the sows.
- At the start of heat checking, the sows will need to become acclimated to the presence of the boar.
 - This may take 2-5 minutes/commercial sow.
 - It could take 5-10 minutes/purebred sow.
- After Heat Checking & Breeding Is Complete it's valuable to expose the sows to boars for an additional 20 minutes, up to an hour.

BOAR GROUPS PROVIDE MORE STIMULUS THAN A SINGLE BOAR

Operations switching from using single boars to groups of boars have seen a quicker standing estrus response from their wean sows resulting in faster heat checking. Groups should include a minimum of 4 boars with a maximum of 12 boars, depending on the age of the boars being utilized. The graph below is a study from a 5600 sow farm. The vertical line indicates when the utilization of boar groups started, resulting in an increase of TB.

